

Response Under 37 C.F.R. §1.116
Expedited Procedure
Examining Group 2815

SECTION I. (AMENDMENTS TO THE CLAIMS)

A listing of claims 1-20 of the present application, which are amended herein with markings to show changes made, is provided below:

1-14. (Cancelled).

15. (Currently amended) A semiconductor structure comprising
a semiconductor substrate having at least one trench isolation region located therein,
said at least one trench isolation region having sidewalls that extend to a common bottom
wall; and
a nitride liner present at least on portions of the sidewalls of the at least one trench
isolation region, said nitride liner extends into the semiconductor substrate that surrounds
the at least one trench isolation region and protects the sidewalls of the at least one trench
isolation region so as to reduce stress in the semiconductor substrate, and
a trench dielectric material filling the at least one trench isolation region, wherein said
trench dielectric material is selected from the group consisting of SiO₂,
tetraethylorthosilicate (TEOS), and a high-density plasma oxide, and wherein said trench
dielectric material comprises nitrogen species.

16. (Original) The semiconductor structure of Claim 15 wherein the nitride liner is present on
the entire sidewalls and bottom wall of the at least one trench.

17. (Currently amended) The A semiconductor structure of Claim 15 comprising:
a semiconductor substrate having at least one trench isolation region located therein,
said at least one trench isolation region having sidewalls that extend to a common bottom
wall; and
a nitride liner present at least on portions of the sidewalls of the at least one trench
isolation region, said nitride liner extends into the semiconductor substrate that surrounds
the at least one trench isolation region and protects the sidewalls of the at least one trench

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isolation region so as to reduce stress in the semiconductor substrate, wherein the nitride liner is a nitrided surface layer that has a thickness of about 0.1 to about 2.0 nm.

18. (Original) The semiconductor structure of Claim 15 further comprising NFET device regions and PFET device regions.
19. (Original) The semiconductor structure of Claim 18 wherein the trenches adjoining the NFETs contain the nitride liner on the entire sidewalls and bottom wall of each trench.
20. (Original) The semiconductor structure of Claim 18 wherein the sidewalls of the trenches adjoining the PFETs are void of any nitride liner.